ABSTRACT

Methods, systems, computer program products, and methods of doing business by adapting audio renderings of non-audio messages (for example, e-mail messages that are processed by a text-to-speech translator) to reflect various nuances of the non-audio information. Audio cues are provided for this purpose, which are sounds that are "mixed" in with the audio rendering as a separate (background) audio stream. Audio cues may reflect information such as the topical structure of a text file, or changes in paragraphs. Or, audio cues may be used to signal nuances such as changes in the color or font of the source text. Audio cues may also be advantageously used to reflect information about the translation process with which the audio rendering of a text file was created, such as using varying background tones to convey the degree of certainty in the accuracy of translating text to audio using a text-to-speech translation system, or of translating audio to text using a voice recognition system, or of translating between languages, and so forth. Stylesheets, such as those encoded in the Extensible Stylesheet Language ("XSL"), may optionally be used to customize the audio cues. For example, a user-specific stylesheet customization may be performed to override system-wide default audio cues for a particular user, enabling her to hear a different background sound for messages on a particular topic than other users will hear.